

PERSONAL HEARING EVALUATOR

ABSTRACT OF THE DISCLOSURE

5 A hand-held device includes an audio transducer (i.e., speaker) for delivering acoustic
test stimuli to a test subject within the direct sound field range of the device. The device
accurately delivers multi-level and multi-frequency test stimuli for the subjective response by
the test subject holding the device. An ultrasonic position sensor within the device determines
the position of the device with respect to the head or a portion of interest of the head of the test
subject while the device is being held. The acoustic test stimuli are controlled and regulated
10 based on the position of the device with respect to the test subject so that accurate levels of test
stimuli are presented only when the device is within a proper range and irrespective of its exact
position with respect to the test subject's head.